

## Policy Punctuations in Colorado Water Law: The Breakdown of a Monopoly

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### Abstract

*The actors, influences, and processes that combine forces to change policy subsystems are modeled in punctuated equilibrium theory wherein monopolistic policy subsystems are broken down through changes in policy images and venue shopping spurred by a critical mobilization of actors. Studying a case of policy change in Colorado water rights, this research examines multiple levels of policy change—local, state, and cross-case. This research finds that at the state level, punctuated equilibrium theory accurately explains the process by which policies changed to allow for recreational in-channel uses of water. At the local level, however, these processes are not clearly evident. Using media coverage as a proxy measure for agenda status also shows that policy image change and high public agenda status did not lead to these policy changes within Colorado communities. This article discusses whether we should therefore discount punctuated equilibrium as a model of policy change in this case.*

**KEY WORDS:** environmental policy, policy change, punctuated equilibrium theory, water law

For decades, the predominant theory of policy change involved incremental changes to policies that add up to significant change over time (Lindblom, 1959, for example). This incremental theory of change has since been replaced by a theory that attempts to reconcile the competing observations that we do see small and slow progress toward policy change made in most cases, but we also occasionally see lasting and significant changes that take place. Since Baumgartner and Jones (1993) developed this punctuated equilibrium (PE) theory of the policy process, it has been subjected to both empirical and theoretical analysis over the past decade and a half (see Howlett, 1997; Levento-lu & Slantchev, 2007; Robinson, Caver, Meier, & O'Toole, 2007, for example). This research has advanced the theory of punctuated change in policy making to a great degree. While scholars have focused on modeling and especially on empirical testing of the theory, which are both vital to expanding the understanding of policy change, they have not analyzed some of the components and assumptions of the theory to the same degree. This article will examine three of the core tenets of PE theory: policy images, media coverage as it translates to agenda status, and the inclusion of new actors in the policy process to allow for policy change.

While much scholarship on PE theory has focused on empirical testing, this research focuses on expanding the understanding of specific elements of the theory. It is therefore appropriate to conduct this research using a qualitative case-study analysis of environmental policy change. In Colorado, over the past two decades, 12 communities have applied for water rights for recreational in-channel uses such as kayaking and white-water rafting. Beyond these communities, the state legislature and state courts were highly involved in the process of policy change at a statewide

Prepared for the 2009 Southwestern Political Science Association Annual Meeting, April 8–11, 2009, Denver, Colorado.

Review of Policy Research, Volume 27, Number 2 (2010)  
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level. This case study provides an excellent research setting because it allows for cross-case analysis among Colorado communities at a local level of policy change. It also allows for a comparison between local and state-level policy processes. This case-study research will help to answer the research question: *can punctuated equilibrium theory explain the process of policy change in recreational in-channel water rights in Colorado communities?* Specifically, this research will analyze the three components of PE theory mentioned above, and outlined in detail below: *policy images, the translation of mass media coverage into agenda status, and the inclusion of new actors in promoting policy change.*

To answer this question and analyze these three PE concepts, the literature on PE will be outlined in detail, focusing on those components that are analyzed in this article. Second, the case study and research methods used in this research will be explained, followed by an in-depth analysis of the process of policy change in recreational water rights policy in Colorado. Finally, conclusions will be drawn to determine if PE theory can be applied to the case presented here, and whether scholars have traditionally viewed the concepts of policy images, media agenda status, and openness of policy making in the manner necessary to adequately apply these elements to the study of policy change.

## Literature

PE theory attempts to reconcile the competing realities associated with public policy changes—that changes happen incrementally over time (Lindblom, 1959), but we also occasionally see significant and lasting policy changes that alter the policy landscape for future policy debates (Baumgartner & Jones, 1991, 1993). In PE theory, Baumgartner and Jones model policy changes as a result of the breakdown of policy monopolies. These monopolies are comprised of a small group of decision makers who dominate all discourse and policy making related to individual policy issues. Policy monopolies are created through a process of enthusiastic, or Downsian, mobilization wherein government intervention to solve problems is viewed in a positive light. This enthusiastic mobilization sets the stage for a long-lasting monopoly of power that limits access and debate over policy issues. This monopolistic policy domination restricts change and helps explain why we often only see limited, or incremental, policy changes. Later, once this monopoly has successfully limited access, discussion, and policy change, a second mobilization may take place. This critical, or Schatteschneider, mobilization “often stems from the efforts of opponents of the status quo to expand the scope of conflict” in order to promote change (Baumgartner & Jones, 1993, p. 89).

Two important aspects of this critical mobilization that allow for significant policy change to take place include policy images and venue expansion. Policy images are how we understand and discuss policy issues. By changing the images associated with a policy, proponents of change can help to transform the debate and potentially cause policy change. By controlling the content of policy discussions, one side can control the problem definition. As Kingdon (1995) argues, controlling the problem definition can alter the policy debate and outcome. These policy images

are often measured by analyzing media coverage of policy issues, and the images contained in that coverage.

A second important aspect of critical mobilization, and the corollary breakdown of policy monopolies, is venue expansion. The concept of venue expansion, as defined by Baumgartner and Jones, is that policy opponents will seek to have their voices heard and will seek out friendly venues in which to voice their concerns (Baumgartner & Jones, 1993; Talbert, Jones, & Baumgartner, 1995). If a legislative committee has jurisdiction over a policy issue, but that committee is an integral part of the policy monopoly that limits policy change, then opponents will attempt to find friendlier venues that may be able to assert jurisdiction (Baumgartner, Jones, & MacLeod, 2000; Jones, Baumgartner, & Talbert, 1993). Opponents will then work within these friendly venues to attempt to bring about policy changes. This venue shopping can lead to significant policy changes over time. It can also alter the institutional structures of the venues that exert influence over policy issues as venues sometimes expand their jurisdiction permanently.

It is the interaction between these two concepts—policy images and policy venues—that is of particular importance when discussing policy change. “Policy-makers attempt both to manipulate the dominant understanding of the issues with which they deal and to influence the institutions that exert jurisdiction over them” (Baumgartner & Jones, 1993, p. 35). The outsiders in a policy debate are those who have the incentive to alter the images associated with policy issues as well as the venues in which these issues are debated. These outsiders can make their appeals and attempt to sell their images to the public, or simply to the decision makers who have power over policy change.

Much of the PE scholarship has analyzed policy change from the traditional standpoint of U.S. congressional legislation. It is important to note that this national policy change is important, but that many of the policies that directly influence society, and specifically our consumption of natural resources, are also debated on a state or local government level. It is increasingly important to attempt to expand our understanding of PE theory as it relates to sub-levels of government policy making. The few studies that have focused on lower level policy change generally fit within either budgetary analysis of PE theory (Jordan, 2003) or have concentrated on a state-level analysis of PE (Schneider, 2006). There are only a handful of studies that have been conducted using PE theory in a local environmental policy setting (Cashore & Howlett, 2007; Repetto, 2006). Local policy change is important to study for a number of reasons, but one significant element of the uniqueness of local policy making is that the locus of control is often removed from the local government, or it is delegated from a higher authority. Whether this dynamic results in different policy outcomes than in state-level policy making is an important element of policy scholarship that should be investigated.

Most PE scholarship focuses on either empirical testing of the established concepts of PE theory (Howlett, 1997; Jones, Baumgartner, & True, 1998; Robinson & Caver, 2006; Robinson et al., 2007) or on building theoretical models of PE as it relates to various policy issues (Jones & Baumgartner, 2005; Leventon-lu & Slantchev, 2007). While both of these approaches have proven invaluable to the evolution of PE and its ability to describe the process of policy change, little work

has been done to analyze the concepts presented in PE theory and to critically evaluate their value and measurement.

It is important to note the use of mass media data as a measure of policy image change: mass media data are vital to use in order to understand the discussion and debate of policy issues. These data have, however, been used ineffectively in much policy scholarship. By using the level of intensity of media coverage as a measure of the attention being paid to a given policy issue within government systems, scholars are making significant assumptions about the journalistic practices that lead to the selection of stories. Notably, scholars assume that media coverage of policy issues directly correlates to the level of attention that Congress or the public is paying to those issues at a given time. This assumption is a big one, and not necessarily an accurate one (Graber, 2006).

Graber (2006) asserts that not only do journalistic practices prevent us from equating media coverage directly with governmental agenda status of policy issues, but that we also should be wary of using Eastern elite media sources as our measure of agenda status of any given issue. Graber (2006) states that national media coverage is most important to presidents and prominent members of Congress. Beyond these prominent individuals, state or local media hold much more value for members of Congress. Most legislators are primarily concerned with the media coverage that they receive in their own district rather than the media coverage that they may receive in the *New York Times* or *Washington Post* (assuming we are not talking about significant scandal that may hamper reelection). Reelection depends to a greater extent on the coverage that a congressional representative gets in his home state or home district. This focus on local media may determine the types of media outreach conducted by congressional offices, which in turn may influence the types and quantity of stories published in media outlets across the country. National media may focus on issues of national prominence, and state media will focus on issues of regional or state importance, or those issues that relate to the local congressional delegation. This clearly means that media coverage of Congress will vary significantly based on the level of coverage (national, state, local media) and on the subject of coverage. This may also mean that what constitutes agenda status in a national newspaper may not register as important in the *Des Moines Register* or the *Denver Post*, and may therefore not register as important for members of that state's delegation.

Additionally, the databases from the *New York Times Index* and the *Readers' Guide* that are often used to measure agenda status of policy issues are flawed. Not only do these databases prove to be incomplete, but they also draw from limited sources. The use of these databases can introduce a systematic bias in the data. It is necessary to conduct much more in-depth sourcing of media coverage in order to develop databases that are not only complete, but are also relevant to policy making and agenda status. Because of these several difficulties in using national media as measures of agenda status, scholars interested in delving deeper into the policy image aspect of PE may find it necessary to conduct research on state- or local-level policy issues. They will also find it necessary to construct their own complete datasets of media coverage rather than rely on electronic databases.

Scholars also use legislative committee hearing data to determine the governmental agenda status of policy issues. While this does not introduce the systematic bias that media sampling might, it is important to note a significant drawback to this

data collection. In many cases of local and agency decisions, wherein policy changes are made, legislative hearing data may not reflect the agenda status of certain policy issues. An issue could be high on an agency agenda, and much work could be conducted through which we see policies changed, but we may not see legislators debate the issue. The case studied in this article provides yet another example of the incomplete nature of legislative hearing data. In some cases, such as Colorado water law, the jurisdiction for a policy issue may reside largely outside of legislative venues. In Colorado water issues, it is the state water court system that plays a significant role. These nuanced differences must be considered when designing appropriate research projects attempting to understand the role that PE processes play in policy change.

The literature outlined above highlight several of the central tenets of PE theory. Under PE theory, we expect that through a critical mobilization brought on by a new definition of policy issues that policy subsystems open up to include a greater number of stakeholders. This, combined with a possible venue shopping process whereby actors seek out the friendliest venues to present their case, will lead to change in policies formerly dominated by policy monopolies. This article will analyze whether these concepts and processes apply to a single case wherein multiple levels of analysis are possible: state, local, and cross-case. This research simultaneously attempts to understand some of the constructs presented in PE theory more deeply. Specifically, it will analyze the concept of policy images, the role of media coverage as a proxy measure for agenda status of policy issues, and the opening of the policy process to more players as a mechanism for change.

## **Research Methods**

This analysis of PE theory as it applies to environmental policy is conducted using an in-depth case-study research design. The case selected for this research allows for a cross-case comparison among nearly 20 communities as well as a broader statewide analysis of the policy process in Colorado's courts and legislature. The case analyzed here is that of the recreational in-channel diversion water right in Colorado.

### ***Recreational In-Channel Diversion Water Rights***

In 1998, Golden, Colorado, filed its application for a recreational in-channel water right in Colorado (Abeln, 2005; Porzak, Bushong, Holleman, & Macdonnell, 2007). Previous water rights cases had set the stage, and the legal precedent, for this case. Fort Collins, Thornton, and Aspen had all previously obtained water rights for use in recreation. These previous cases were different from Golden in three important ways: (1) they were much smaller water rights—35 cubic feet per second in Fort Collins, compared with 1,000 cubic feet per second in Golden; (2) in two of the cases water was actually removed from the stream and channeled through an historic river channel to conform to requirements of Colorado water law; and (3) these communities did not build engineered recreational structures in the river as later communities did.

This seemingly unimportant event set the stage for a heated political debate within nearly 20 Colorado communities and across the state water community. Recreational in-channel diversion (RICD) water rights are water rights that a community can own for in-stream uses such as kayaking and white-water rafting. These water rights differ dramatically from all other water rights under Colorado's prior appropriation water regime. Under this system of water law, a water user must demonstrate a beneficial use of the water and must also divert or control that water (Getches, 1997). The beneficial use of water has long been tied to economic benefit derived from such uses. In Colorado, as the economy changes from a traditional agriculture and natural resource-based economy to one driven increasingly by tourism and recreation, beneficial use can now be defined to include recreation (Crow, 2008). The requirement that water be diverted from the stream was changed in 1973 to allow the State of Colorado, through the Colorado Water Conservation Board, to own in-stream water rights for environmental purposes. No other entity in Colorado can own an in-stream water right without a diversion or control of the water. For recreational in-channel water rights that control is accomplished through the construction of kayak courses (also called white-water parks). These structures look and act similar to fish ladders, constricting the water and channeling it to increase the velocity of flows for better white-water boating experiences. In several cases, these structures were built either primarily or secondarily as fish ladders to help the aquatic habitat as well as provide recreational facilities.

On three occasions, the Colorado General Assembly debated, and in two instances passed, legislation that defined and codified this RICD water right (Colorado Senate Bills 216 [2001]; 62 [2005]; 37 [2006]). In addition to these legislative actions, four communities' RICD water rights applications went before the Colorado Supreme Court before they were approved. In Colorado, the system of water rights is governed by adjudication. It is rare for the legislature to become involved in matters related to establishing new forms of water rights or in the specific quantification or resolution of water rights, except in instances like the RICD where significant controversy or statewide policy interest exists. The legislature can pass laws governing the use of water as long as it does not contradict Colorado's state constitution which specifies:

The right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied. Priority of appropriation shall give the better right as between those using the water for the same purpose (Article XVI, Section 6).

The controversy that existed in the case of the RICD water right involved opposing interests and uses of water. Environmental groups and recreational advocates, including many Colorado mountain communities, were supportive of the change that allowed for this new use of water. Most traditional water users, however, were opposed. These traditional water users included the State of Colorado, water developers and suppliers, and agricultural irrigators. Traditional municipal water providers were divided between the two advocacy groups depending largely on whether their local economies are dependent on tourism, with the tourist-based economies supporting the water rights and the other municipalities opposing the water rights.

**Data Collection and Analysis**

A case-study research design was developed in order to investigate the policy processes and the research questions presented above. A comparative case-study design was used to study these community policy processes. This research uses a broad case within which individual community policy decisions can be analyzed and compared. Additionally, the statewide policy process concerning RICD water rights can be analyzed. This multilevel comparative case study was conducted using multiple data sources, as detailed below. The comparative case-study design also employed an adopter/nonadopter comparison in order to avoid selecting on the dependent variable (King, Keohane, & Verba, 1994), which in this study is a community’s decision to apply for an RICD water right. This is the appropriate level of analysis at the community level because once the RICD water right application is filed it is subservient to legal, constitutional, and statutory precedent, leaving the community’s subsequent decisions and actions moot. Additionally, each RICD that was applied for was granted. Finally, the adopter communities studied here spent hundreds of thousands of dollars in legal fees and in infrastructure expenditures (to build the kayak course infrastructure required to obtain the water right). This was therefore not a simple or inexpensive policy decision. At the state level, policy change is defined by the passage of legislation.

As Table 1 details, 18 communities were studied for this research. This includes the 12 communities that applied for RICD water rights and 6 communities that could have, but chose not to. This latter group includes all Colorado communities that plan to build a kayak course, or have already done so, which is required to obtain an RICD. It is important to compare these two sets of communities because numerous confounding factors exist among the RICD adopter communities and

**Table 1.** Case-study communities

Community	Study category
Golden	Adopter
Vail	Adopter
Breckenridge	Adopter
Longmont	Adopter
Pueblo	Adopter
Gunnison	Adopter
Steamboat Springs	Adopter
Silverthorne	Adopter
Chaffee County	Adopter
Avon	Adopter
Durango	Adopter
Carbondale	Adopter
Denver	Nonadopter
Boulder	Nonadopter
Fort Collins*	Nonadopter
Lyons	Nonadopter
Glenwood Springs	Nonadopter
Palisade	Nonadopter

\*As noted above, Fort Collins owns an early recreational water right upon which RICD legal precedent was set. However, the city only later became involved in construction of a kayak course on a different stretch of the river for which their small previous water right could not legally be used. For this reason, Fort Collins is included as a nonadopter due to its second involvement in kayak and recreational water rights issues.

Colorado communities generally. Because Colorado law requires at least the planned and documented construction of a kayak course in order for the water right application to be granted and because there are various reasons communities may chose not to build such a kayak course (geography, topography, economic interests, financial requirements, etc.), it is important to select nonadopter cases based upon one criterion: that the community could potentially apply for an RICD water right. Only those communities that plan to build a kayak course or have already built one are qualified to do so. This list of communities with plans to build kayak courses was compiled based on media coverage, interview subject questioning, and discussions with the leading recreational engineering firms in the state (the professionals who design these courses).

The sources of data used to form the case study presented here include media coverage, legal and legislative documentation, and in-depth interviews. Media coverage from 17 newspapers across Colorado, covering all case-study communities and statewide newspapers was compiled from 1997 through 2007. Second, all legal and legislative documentation of community legal cases, policy decisions, and statewide legislative debates was compiled and analyzed. Finally, in-depth interviews were conducted with all community policy participants and statewide stakeholders and participants.

These data were coded using a two-step method. Codes were created based upon the literature presented above, which indicate that certain policy influences may be important to the process of policy change. Then, during the systematic line-by-line coding process these codes were expanded based upon the emergent categories in the data (Strauss & Corbin, 1998; Weston et al., 2001). In this way, the data drive the research findings, but the literature helped narrow the search. This coding process helps the researcher to detect patterns in the data and form case-study narratives to understand complex processes at work within cases, which is the strength of case-study research (Yin, 2003). For this article, each interview subject was assigned a code, which is used each time a quotation from that subject is used. The code describing the subject's organizational affiliation along with a number comprise the interview subject code. For example, local elected officials are coded as EL. These subjects are assigned codes EL-01 through EL-07.<sup>1</sup>

The data collected for this research were analyzed using a two-stage approach (Eisenhardt, 1989; Miles & Huberman, 1984). Case narratives were created based upon the data gathered and coded. These case narratives were then compared using a cross-case comparative method that analyzed policy processes at work within all case-study communities. This two-stage approach allows for a thorough understanding of the policy process in each community and statewide, but it also provides greater rigor by systematically analyzing these processes across all communities (Bourgeois & Eisenhardt, 1988; Eisenhardt, 1989).

## Findings

Water law is a highly contentious policy venue in Colorado and the West. Recreational in-channel diversion water rights came to the fore in 1998 when Golden, Colorado, applied for the first such water right in its modern form in Colorado. The

primary reason why this new form of water right became such a contentious and significant policy debate in Colorado is related to the history of entrenched policy interests in Colorado. Since the 1860s when prior appropriation was established as the basis of all water rights in Colorado, agricultural, municipal, and industrial users of water have dominated policy debates (Crow, 2008). Colorado's constitution specifically states that:

... when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using water for domestic purposes shall have preference over those claiming for any other purpose, and those requiring water for agricultural purposes shall have preference over those using the same for manufacturing purposes. (Article XVI, Section 6)

This preference ordering is largely due to (1) the necessity for domestic and agricultural water use to provide water for human populations; and (2) the fact that agricultural users were the first such water users who lobbied for a system of property rights to protect water use.

To produce crops for survival in this region, irrigation is virtually a requirement. While some crops can grow in this arid region, it is risky for agricultural producers to do so without adequate water rights. Because of this investment-intense irrigation needed for effective agricultural production in the West, "early settlers had little incentive to commit capital and labor to constructing water diversions and distribution systems if there were any risk of other users moving in upstream and cutting off supplies" (Ingram, 1982, p. 135). These agricultural users were followed closely by domestic suppliers as the West was populated and municipal water suppliers invested significant resources to develop water infrastructure such as dams, pipelines, and municipal treatment facilities. The water rights law of Colorado water was solely an irrigation law until 1903 (Hobbs, 1999) when water rights were established for municipal uses. Since this time, municipal water supplies have expanded rapidly. Water pipelines now carry water through the Rocky Mountains to supply large populations along the Front Range of Colorado (including the Denver area and surrounding communities).

The adjudication system that governs Colorado water law strengthens this policy monopoly. Unlike other policy issues, water law is governed by a system of water courts. Stakeholders have access to the courts to apply for and oppose water rights. Generally, this access is limited to those stakeholders who own water rights and can be injured by new water rights. This is not always the case, however. In the case presented here, environmental and recreation groups were allowed standing in water court as well. The legislature rarely becomes involved in water rights adjudication in Colorado, generally leaving it to the state water courts and the Colorado Supreme Court to decide the legality and extent of individual water rights. This has led many observers and participants to argue that Colorado water is only accessible to interests who have resources and expertise to navigate the water court system.

"What's unique about Colorado is that to get a water right, you actually have to go to water court . . . and that fact makes it harder for non-experts, non-lawyers to participate in the water system." [ER-02]

"Our system is becoming way too litigious and we're spending too much money." [CO-01]

“Colorado’s often been criticized as a heavy litigious state which just manufactures attorneys’ fees and engineers’ costs. . . .” [CO-06]

“In order to do anything with water in Colorado, you have to go through the same expensive process in water court.” [LW-02]

These opinions highlight the central role that the court system plays in water rights law and policy in Colorado. A couple of notes are worth mentioning here. First, the authority to decide water law matters is delegated from the state legislature and the state constitution to water courts. The legislature, then, is the venue of second resort in many water rights matters, especially those related to individual water rights adjudication or interpretation. Second, there is no democratic system of debate and policy making within the judicial system.

### ***Statewide RICD Policy Changes: Punctuations of Change***

RICD water rights were an undefined type of water right prior to Golden’s application for a recreational in-channel water right in 1998. These water rights were not on any government, public, or media agenda prior to the Golden case. As noted above, the policy monopoly consisting of the courts, agricultural water users, municipal water users, and water districts had dominated water policy for nearly 125 years (longer if we look prior to the constitutional precedent set in 1876). Golden took its case through the typical channels of water law in Colorado—the water courts.

When the water right was granted by these courts, a state agency—the Colorado Water Conservation Board (CWCB)—was strenuously opposed to the water right. The agency considered these water rights a significant threat to Colorado’s long-term water supply scenario, and according to many observers was unwilling to give up its status as the sole owner of in-stream water rights in Colorado (see discussion above). The CWCB decided to take the policy issue outside of the traditional court system venue, to what it considered a friendlier venue—the Colorado General Assembly. The legislature did not side with the CWCB to prohibit RICD water rights as many had expected. Instead, it defined and codified the water right. This significant change in water policy in Colorado, allowing in-channel recreational uses of water, is dramatic considering that no private water rights for in-channel uses had been allowed previously. So how did this happen, and is it consistent with PE theory’s arguments?

Under PE theory, we should see an increase in the number of stakeholders involved in the policy process. We should also see a shopping for venues that are friendlier than traditional venues for voicing opposition to the policy status quo. We also expect to see the discussion of policy issues shift, using new policy images to help define the debate and help shape discussion.

When the CWCB took its ideological case against RICD water rights to the state legislature, it did so because it had not seen judicial remedies address its opposition to RICD water rights. When the legislative debate over RICD water rights began in 2001, the committees that heard the debates included the Senate Committee on Agriculture, Natural Resources, and Energy; the House Committee on Agriculture, Livestock, and Natural Resources; and the Senate Committee on Public Policy and

Table 2. Statewide legislative involvement

Legislation	Percentage of total legislative hearing testimony	Interest groups represented
Senate Bill 216 (2001)		
RICD supporters	40%	13
RICD opponents	60%	15
Senate Bill 62 (2005)		
RICD supporters	68%	29
RICD opponents	32%	12
Senate Bill 37 (2006)		
RICD supporters	58%	14
RICD opponents	42%	9

Planning. These Senate and House committees are the traditional venues for discussion of water issues in Colorado legislation. If we were to see an increase in the number of participants in the policy process, the committee hearing stage of policy discussion is a likely venue within which we would see this change. Because there were three sequential legislative debates, this case provides an opportunity to examine the change in participation over time. Table 2 shows that in the first round of legislation the committee hearing testimony was dominated by anti-RICD interests, who were largely associated with agricultural and municipal water use and development. Interview subjects familiar with the process stated that this first round of legislation—Senate Bill 216—was quickly assembled and the pro-RICD interests did not have time to respond to the CWCB’s legislative initiative in the same manner that they would in subsequent legislative discussions. As Table 2 illustrates, after this initial legislative debate, pro-RICD interests dominated committee testimony.

This does show that an opening up of the policy debate occurred in legislative discussions of the RICD water right. However, this opening up was not initiated by the disenfranchised recreation and environmental groups. It was initiated by a powerful state agency seeking a friendlier venue than the traditional water court system where it had not seen success in blocking RICD water rights.

The second important analysis involves the agenda status and media coverage of RICD water rights and the timing of the legislative interventions that occurred. Figure 1 shows the number of articles printed in both statewide and local media outlets in each of the years coinciding with this RICD debate in Colorado. It illustrates that there was virtually no media coverage of RICD water rights prior to the first legislative debate (the three legislative debates are marked by single points in the graph in 2001, 2005, and 2006). The agenda status of RICD water rights was very low prior to legislative action. It peaked during each of the policy debates and then dissipated after these debates had ended. A fourth peak exists in 2003, which coincides with a major Colorado Supreme Court decision related to RICD water rights.

Taking a closer look at the data, prior to Senate Bill 216 in 2001, only 10 articles specifically related to legislative issues or to the controversy surrounding these water rights were printed prior to the bill’s passage. Additionally, prior to the introduction of Senate Bill 216 in April of 2001, only 14 articles had been printed throughout Colorado over the preceding three years related in any way to recreation and in-channel water rights issues. In each subsequent round of legislation the agenda status of RICD water rights grew as both state and local media covered the

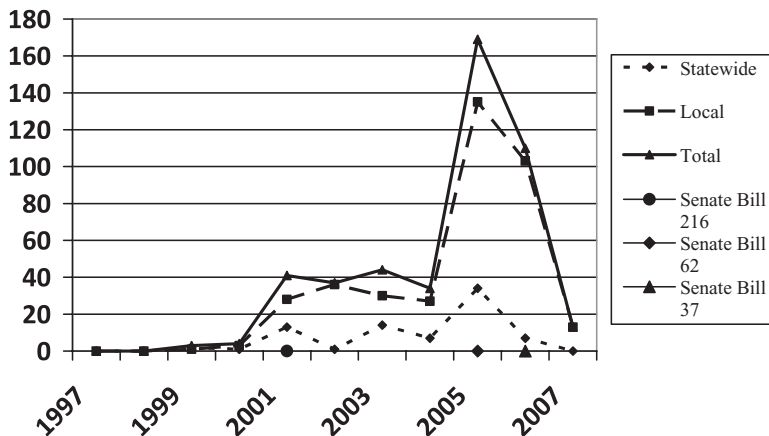


Figure 1. Timing of statewide media coverage and legislation.

controversy between 1998 and 2007. The media seem to react to the legislative and political debates that were ongoing at the time.

Beyond the agenda status of RICD water rights, it is important to understand whether there was a shift in the policy images associated with these water rights. Water debates in Colorado generally focus on the use of water for agriculture and municipal development and on issues such as coal bed methane mining and the corollary water resource needs. This language changed in the debate over RICD water rights.

“People don’t come to Colorado to climb our small mountains . . . they come for the biggest and the best. . . . I was constantly trying throughout my arguments to bring it back to some analogies that would resonate with them (the Supreme Court).” [WA-04]

“They’re (RICD communities) funneling and re-channeling the water, they’re creating waves and more importantly, they’re creating money. So this looks like an economic use of water.” [CO-06]

“The greater the (stream)flow, the greater the dough for the state as a whole.” [WA-04]

The change to focusing on recreation as a major economic driver, and these RICD water rights as part of the new economy was a significant shift in the debate over recreational water rights. Some interview subjects stated that this was a debate between an “old West” and a “new West” where the economy is in transition.

“We as a society are moving from an agricultural society to a recreation-based society, at least here.” [EL-05]

“To some extent sort of an ‘old West’ versus ‘new West’ phenomenon that we’re seeing. The new West being the changing economy in Colorado . . . where recreation is becoming increasingly important.” [WA-05]

“The struggle between the old school and new school water uses. . . . I think there is a change in demographics and there is a change in people’s interest in whitewater recreation.” [ER-02]

An analysis of newspaper headlines indicates that a recreation-focused frame grew in prominence in the RICD media coverage. Examples of such headlines include:

“Kayaking: River Runners win battle in water war”;  
 “Whitewater case reflects the importance of tourism in the state”;  
 “Agriculture clashes with recreation over new river diversions”;  
 “Planned whitewater parks pit ‘old west’ against ‘new west’ . . .”; and  
 “Water decision could boost local tourism.”

Among participants in the statewide policy debate, as well as much media coverage on RICD water rights, the images associated with the water debate increasingly became about water and recreation as an economic driver in Colorado. Proponents of RICD water rights consistently pointed to the economic benefits of such a water right, which had not previously been used as an argument in favor of nonconsumptive water rights.

This statewide process of policy change supports many arguments set forth under PE theory. Policy images shifted significantly—from a focus on water for agriculture and domestic supply to a focus on water use in recreational economies in Colorado. Additionally, there was a significant increase in the agenda status of RICD water rights, as measured by RICD media coverage. It is clear that new policy participants became involved in the RICD legislative debate, as illustrated by the testimony given to legislative committees on RICD water rights.

An important consideration based upon these findings is whether the single-stage policy process proposed by PE theory can adequately explain policy change in all venues. This case indicates that perhaps there is room for a two-stage explanation of change. If we view this case as a sequence of events wherein (1) Golden applied for its water right and changed the legal context for later RICD cases; and (2) the CWCB attempted to block this change by venue shopping to the friendlier legislature, then perhaps PE theory’s original explanation of change can be tailored to explain policy change to a greater degree.

We see one interesting difference from PE theory, however. While there was an expansion of venues of discussion with regard to RICDs, it was not policy proponents who sought friendlier venues. Rather, it was policy opponents who were not getting recourse in the court system. These traditional water users, led by the Colorado Water Conservation Board, sought friendlier venues of debate over RICD water rights. This venue expansion did not work in their favor, however, as RICD water rights were subsequently codified in Colorado law. This may indicate that a policy system dominated by a nonparticipatory mechanism like the courts may be different in its policy change dynamics than a traditional democratic system such as a legislature.

### ***Local RICD Policy Changes: Lack of Critical Mobilization for Change***

The process of change in local communities happened alongside, but under different circumstances than the statewide policy process. Within each RICD community different processes were at work to promote policy change in favor of the local community pursuing and funding an RICD water right application and the corollary legal process. Traditionally in Colorado, some communities have not directly been involved in water law. These communities, including both municipalities and

counties, have water boards or districts that deal with water matters on the community's behalf. This has created a system of entrenched water interests, dominated by long-standing stakeholders and managers, according to many interview subjects.

"When the people that are supposed to be serving us tell us, 'just trust us because you're not intelligent enough to understand,' that should ring everybody's bell." [EL-04]

"There's a lot of guys that have been around for a long time and have all the chips when it comes to water." [RE-02]

"What kind of exists in a very small, very powerful circle of people and they don't come out and ask your opinion." [EL-01]

Because of what some communities saw as a disenfranchisement, and because of the transition to a recreation-based economy discussed above, 12 Colorado communities decided to pursue recreational water rights and the necessary kayak course infrastructure to support the RICD. Within these local communities there appears to have been a critical mobilization, wherein some communities attempted to become involved in water processes that were new to the community. There was also significant dissatisfaction with the state of water law—where water use was not allowed for in-channel recreational uses that were important to these recreation communities. The only in-channel use that was previously allowed were those water rights owned by the Colorado Water Conservation Board for small in-stream flows for environmental purposes. Not only were these water rights small, but they were not permitted for recreational use. So how did these policy changes take place within Colorado communities, and was the process consistent with PE theory?

As above, we should see an increased agenda status of the policy issue, an opening of the policy system, venue shopping for friendlier venues to discuss the policy issue, and a change in the images associated with the policy in question. In local community decision processes, there was not an opening of debate and discussion. Interview subjects were asked who the major proponents of RICD water rights were within their local communities, and further, what individuals were active in lobbying for these water rights.

"The idea actually came from one of the council members." [LG-22]

"The idea came . . . through our attorneys." [LG-12]

"I think the impetus for that . . . came from our water attorney." [LW-11]

"It probably came as much for our water attorneys' suggestions as a way to achieve what we were trying to achieve." [LG-18]

An interesting finding is that citizens were not involved to any important degree. Local citizen boaters were very interested in obtaining the funding to build kayak courses in their communities, but they later dropped out of the process when it focused on the more arcane issues of water rights, even though the water rights would directly influence their enjoyment of the kayak course.

"Water rights for people that even deal with them are pretty obscure. They (kayakers) were happy . . . they were out on the river paddling." [LG-09]

"It's sort of one of those water rights things which seems to be abstract and boring." [LR-05]

Table 3. Policy entrepreneurs by category

Community	Initiator
Golden	Expert: Government Staff
Vail	Expert: Attorney
Breckenridge	Expert: Attorney
Longmont	Expert: Attorney
Pueblo	Expert: Attorney
Gunnison	Expert: Attorney
Steamboat Springs	Elected Official and Citizens
Chaffee County	Citizens
Silverthorne	Expert: Government Staff and Attorney
Durango	Citizens
Avon	Elected Official
Carbondale	Expert: Government Staff and Attorney

Table 4. Timing of local media coverage

Community	# Total local RICD articles	Total articles with recreation/economy headline focus	Date of first article	Date of RICD application
Golden	10	7 (70%)	03/01/01	12/30/98
Vail	5	4 (80%)	06/25/02	12/26/01
Breckenridge	6	4 (66.7%)	05/27/01	12/28/00
Longmont	2	2 (100%)	04/13/04	12/27/01
Pueblo*	36	6 (16.7%)	<b>11/05/01</b>	12/31/01
Gunnison	9	4 (44.4%)	<b>Fall 2001</b>	03/29/02
Steamboat Springs	23	4 (17.4%)	<b>09/27/03</b>	12/22/03
Silverthorne	7	7 (100%)	03/09/05	12/27/04
Chaffee County	30	8 (26.7%)	<b>10/25/04</b>	12/30/04
Avon	0	0 (N/A)	N/A	12/27/05
Durango	31	9 (29%)	<b>06/08/04</b>	02/28/06
Carbondale	2	1 (50%)	<b>04/06/06</b>	05/02/06

\*Communities highlighted in bold are those where discussion of or decisions about the RICD were made after media coverage began. However, in Pueblo, Gunnison, Steamboat Springs, and Carbondale, this first article was about the fact that the decision had been made at that point. Only two communities had access to local media coverage prior to policy decisions being made.

Table 3 illustrates that in these RICD communities, it was not citizens, but rather experts who were the most influential advocates (Crow, 2009, in press). Specifically, water attorneys were the initiators and often the advocates for their client communities’ applications for RICDs.

These experts in water law and management held much greater power over the initiation of policy ideas within local communities than did local citizens or interest groups. In only three of the 12 RICD communities were citizens the initiators and advocates for the water right. In all other communities it was either a water attorney, water manager, or elected official who undertook these activities.

All local media coverage of RICD water rights was analyzed to determine the timing of the coverage. Based upon this analysis, it is clear that media coverage did not precede an increase in agenda status within local communities. Table 4 illustrates that in half of the RICD communities, media coverage did not begin until after the community policy process had concluded and RICD policy decisions had been made. In the other six communities, four of the communities saw their coverage begin only after the decision had been made among local decision makers to apply for the RICD. This means that media coverage preceded policy discussions in only two of the 12 communities.

When estimating the agenda status that RICD water rights attained in each community, Table 4 also illustrates that only one-third of RICD communities had any significant media coverage. These communities—Pueblo, Steamboat Springs, Chaffee County, and Durango—include the only communities where citizens initiated and advocated for RICD water rights and the only communities where there was media coverage prior to decision-making processes (Crow, 2010). This table also shows the percentage of local RICD coverage that used the recreation and economics frame. This new policy image, as discussed in the previous section, dominated discussion among proponents of RICD water rights. In all of the communities where media coverage began after policy decisions had been made, this frame also dominated the media coverage. Those communities where media coverage began before policy decisions were finalized saw 50 percent or less of the local media coverage focused on recreation. This may suggest that if media join the policy discussion late in the process, they are more likely to use the frames that policy advocates have established.

These findings suggest that in the RICD water right policy process, the majority of communities saw experts dominate policy advocacy and initiation, received little media coverage, and recorded low agenda status of RICD water rights prior to finalization of RICD decisions. There was also no evident venue expansion in any RICD community. These communities took their water rights to court, through the traditional legal venue, and debated the water right application within the normal political venues of local water politics—city councils and water districts. They did respond and advocate for statewide RICD water rights in legislative committee hearings, but not with regard to their own water rights. In local RICD matters, these communities played by the traditional rules and did not attempt to search for friendlier venues to debate RICD water rights.

The presence of expert influence on policy decisions does not in itself indicate that PE theory does not apply in this case. Baumgartner and Jones (1993) discuss the many interest groups, including expert or elite groups, that may dominate policy discussions. However, the key finding related to expert dominance in this local government case is that there was no expansion of actors involved in the policy debate. We did not see an opening of the process to include formerly disenfranchised actors who had not been previously allowed to participate in local policy debates.

These findings may suggest that PE theory does not apply to local-level policy change. They may also suggest that a traditional adversarial or collaborative model of policy competition was at work wherein interest groups and policy advocates vie for policy influence and prominence with policy makers through a directly competitive policy debate, as many scholars have studied in environmental policy venues (Weible & Sabatier, 2009). It is important to note, however, that much policy change in technical environmental policy venues may not happen with a significant amount of public debate, so these findings do not preclude the application of PE theory to the local-level policy process in this case. It may simply mean that the traditional data used to determine agenda status and venue expansion are not adequate to explain these processes in some cases. This is consistent with the critique offered above. We did see a significant policy shift both at the local and state levels in the RICD case in Colorado, but the local-level

processes were not as neatly described by PE theory. This does not, however, mean that these findings are inconsistent with what PE scholars have found in other technical policy venues.

## Conclusions

This study finds that PE theory more clearly describes the state-level policy change process than it does the local-level process. Statewide, we saw that there is clear evidence of a shift in policy image in the debate over water uses in Colorado. This shift in policy image also coincided with an opening up of the policy process wherein a greater number of actors from a more diverse set of stakeholder groups were involved in legislative and legal debates. Figure 1 does indicate that media coverage can be a proxy measure for agenda status in policy debates, but it does not demonstrate that this increased agenda status comes prior to increases in legislative attention to a policy problem. We also see that it is important to note that PE theory is not only applicable to legislative policy change. This study demonstrates that policy subsystems dominated by a legalistic process can also proceed largely through a PE theory process in seeing policy changes. In these cases, the legal process itself may constitute a policy monopoly. This monopoly was broken down in Colorado, at least with regard to RICD water rights, through venue shopping to a more traditional venue—the legislature—by opponents rather than supporters of RICDs. At both the state and local levels, supporters did not venue shop to new venues. Rather, these actors discussed and advocated for their cases in the venues that were legally required under Colorado and local laws including CWCB hearings, water courts, city council hearings, and water district meetings. The important finding here is that opponents of policy change—the monopolistic actors—can also venue shop to try to prevent change.

In local policy processes, there is certainly evidence of policy image change, with water rights now being equated with tourism, economic development, and recreation to a greater degree in much of Colorado. The relationship between this changing policy image and increased agenda status as measured by media coverage is less clear. In local community processes, media coverage is not a clear measure for agenda status of issues. Only after policies had changed did media cover the issue. The agenda status therefore was quite low before policy change took place and cannot measure the agenda status of the RICD policy at the time of policy change. This is an avenue ripe for future research.

All told, the local policy process in Colorado RICD communities was not as open as PE theory would assume, partially due to the complex nature of adjudicating new water rights and defining new beneficial uses. Policy change under PE happens partially due to an opening of the policy process wherein new actors and stakeholders can become involved in the policy debate. This was not true in the majority of RICD communities—with experts or elected officials acting as the policy entrepreneurs in 10 of the 12 RICD communities. Based on these findings, it is clear that the explanatory power of PE theory in the RICD case study is mixed. At the state level, it does quite well at explaining how policy change happened. At the local level, we saw additional processes at work.

This research contributes to the growing body of policy change and PE theory literature in a number of important ways. By illustrating that there may be different influences that are important at the state level and within local policy processes, this research provides a new avenue for research in comparative PE theory. One of the tenets of PE theory is that through an opening up of the policy process to involve more actors, policy monopolies break down and policy change happens. This research shows that this may not happen, and in fact, experts who are not part of the monopoly may at times be the best actors to promote punctuations of policy change. An insular policy process that involves actors well versed in the policy subsystem may be a highly likely venue for change in some cases. Finally, PE research has used media coverage as a proxy for measuring the agenda status of policy issues. While this makes sense, this research reinforces the notion that measuring elite newspapers on the East Coast may not measure public agenda status of issues. Instead, local media may be a much more effective measure of agenda status.

The in-depth analysis of a case that allows for a multilevel analysis of policy change within different levels of government and different communities is a highly effective way to understand some of the nuances of policy change. It is also an effective way for researchers to determine if there are important differences in the mechanisms of PE theory in local or state policy subsystems. Media analysis is often the subject of debate within policy scholarship (or should be). Samples of media coverage from elite newspapers generally serve as the measure for agenda status of policy issues. For many reasons, this may not be appropriate. Not only are newspapers declining in readership, but other media sources have become as important, if not more important, than these elite newspapers. Drawing a sample of media coverage also limits researchers' abilities to understand these complex policy processes. Abstracts of articles or even samples of complete articles do not allow for researchers to understand the prominence, placement, framing, or multiple subjects that are addressed within single news articles. This research demonstrates the importance of taking a micro view of policy change when it comes to measuring media coverage. By using a case where it is possible to draw a complete sample of news coverage from all sources of local news, this research is much more powerful in its ability to draw research conclusions based upon local media coverage of policy issues. In local communities, newspapers are still the primary, if not the only, source of news coverage about local policy issues and therefore allow for a direct analysis of media influences without competition from new media sources. Future research should seize the opportunity to investigate media coverage as a measure of agenda status by forgoing the easy route of drawing a sample of media coverage from elite newspapers and instead attempt to paint a complete picture of the available information and framing of policy issues within policy subsystems. Through this method scholars can speak specifically about the nuances of media coverage, rather than simply about quantity and subject of coverage.

As noted above, this research provides two new and interesting areas for further investigation. First, nonparticipatory venues such as courts may demonstrate different policy processes than democratic venues. This is an important area for research considering the central role that courts can play in numerous policy venues, especially environmental policy making. Second, the analysis of local media coverage indicates that if media are late to cover policy discussions, they may be

more likely to use the policy images and frames that policy advocates employ. This is potentially a significant finding related to media bias and policy influence and warrants further study.

Two caveats should be recognized in applying the results of this study beyond this case. First, this research uses a small-n case-study design. While this method allowed for more depth of study, it forgoes the ability to generalize the research findings to a significantly larger group of cases. Second, this study is based on a technical policy issue, which may introduce some complications in using PE theory to describe the process of policy change because these processes may be more insular in technical policy venues. This one case suggests that future studies take a similar research approach and use this multilevel analysis to attempt to understand the differences between local-, state-, and federal-level policy making and the processes at work within each of these venues. It is necessary to continue this type of research to expand PE theory beyond the predominant analysis of federal policy making.

## Note

- 1 Codes for interview subjects: CO, Other state agency employee; CW, Colorado Water Conservation Board employee; EL, Local elected official; ER, Environmental or recreation interest; ES, State elected official; LG, Local government employee; LR, Local recreation interest; LW, Local water provider; RE, Recreation engineer; WA, Water attorney; WP, Other water provider.

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